

## TRANSPORT SECTOR IN BULGARIA – CHALLENGES THE CRISIS AND LIMITATIONS

### SEKTOR DOPRAVY V BULHARSKU – PRÍČINY KRÍZ A ICH HRANICE

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#### SUMMARY:

*The transport is in direct interdependency from various external factors from a different nature (economic, social and demographic, political, environmental). The competitiveness, mobility, economic growth and prosperity depend on the condition and efficiency of the transport infrastructure. It has a strong influence on the quality of the transport service, too. The transport policy which is done in Bulgaria, is directed towards improvement of the quality of the transport service as a whole. The modernization of the transport infrastructure and the innovations in the high technology transportation services when performing the transports of passengers and cargoes is a main strategically priority. The development of the transport sector in Bulgaria is directed towards offering a modern, ecological, safe and stable transport, which should help for achieving integration of our country within the common European transport system.*

**KEYWORDS:** transport, transport infrastructure, Investments, Development, Economic and financial crisis.

#### INTRODUCTION

The development of the economy in Bulgaria is in a direct relation with the status of the transport sector. Its role is significant, since it helps for securing the activity of all economic sectors. Particularly the best transport relations help for the normal functioning of the domestic and international market. The transport activity is in direct relation with the market integration and economic growth of the country. The results from the activity of the transport sector participate proactively in the accounting of the macro economic indicators. Transport is an important element for the development of the economy in the country. It is one of the main economic sections, namely the section of services. In the transport system of Bulgaria, the railways realize 35 % of the volume of the transportation in the country. The transport creates about 5 % of the GDP and, including the private sector, its share grows up to 7-8 % [1].

#### 1. THE TRANSPORT IS CONSIDERED BY US AS A COMPLEX SYSTEM

The transport is considered by us as a complex system in which there work together

the infrastructure, transport vehicles, information technologies, rules, safety, security and culture of service provisioning. The transport is in direct interdependency from various external factors from a different nature (economic, social and demographic, political, environmental). They interact between each other and influence the development of the transport sector.

An important element when providing the transport service is reserved for the transport infrastructure itself. It is observed as a subsystem of the transport system and includes the transport ways with their adjacent technical facilities, necessary for performing the transport activity. The development of the transport infrastructure, its modernization is mandatory condition for the successful integration within the European transport system.

The transport infrastructure and the appropriate networks and facilities of Bulgaria as an European country are included in the common transport network. The European Union is characterized by its dense transport network, but there are significant differences in the quality and reliability of the infrastructure,

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for example the new member countries do not have high speed railroads as well as the infrastructure in general is not in a very good condition. For decreasing these differences in a manner that the infrastructure in the entire EU should be with high and equal quality there are huge investments necessary. A part of them is ensured from various European programs, other are ensured from the budgets of the states themselves, but as a whole the funds are not enough for reaching the desired condition of the infrastructure. One of the main priorities of the EU is the construction of safe, modern and integrated transport network.

The competitiveness, mobility, economic growth and prosperity depend on the condition and efficiency of the transport infrastructure. It has a strong influence on the quality of the transport service, too.

Currently the transport sector in Bulgaria doesn't offer any transport service, which could be in compliance with the modern requirements for quality and comfort, for safety and security. Of course this is reflected on the demand of the transport service, too. One observes a decrease both in the transported cargoes and in the transported passengers by the various types of transport.

Table 1

**Transported cargoes in total and by types of transport in the period 2007 - 2014**  
[in %]

<b>TRANSPORT</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
Railway transport	16,25	15,90	13,68	14,81	13,96	14,21	14,97	14,61
Road transport	53,51	52,70	56,37	54,97	58,11	57,51	56,74	56,98
Pipeline transport	17,74	19,00	19,68	21,10	22,10	22,16	22,81	22,51
Water transport	12,50	12,40	10,25	9,11	5,82	6,11	5,47	5,89
Air transport	0,01	0,01	0,01	0,01	0,02	0,01	0,01	0,01
<b>TOTAL</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Source: [www.nsi.bg](http://www.nsi.bg)

Table 2

**Number of transported passengers in total and by types of transport in the period 2007 - 2014**  
[in %]

<b>TRANSPORT</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
Railway transport	3,32	2,82	2,99	3,03	3,75	3,42	3,62	3,57
Road transport	73,58	73,67	69,14	68,46	66,71	67,19	65,87	65,32
Water transport	0,01	0,01	0,01	0,01	0,01	0,01	0,01	0,01
Air transport	0,08	0,07	0,09	0,09	0,17	0,21	0,24	0,26
Public Transport	23,01	23,43	27,77	28,41	29,36	29,17	30,26	30,84
<b>TOTAL</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Source: [www.nsi.bg](http://www.nsi.bg)

It is for sure that the not good condition of the transport infrastructure is a burden for the economy's development. The relation between the geographic availability, mobility and economic growth is important and therefore of key importance is namely the improvement of

the infrastructure and the quality of the transport service.

The transport policy which is done in Bulgaria, is directed towards improvement of the quality of the transport service as a whole. The modernization of the transport infrastructure

and the innovations in the high technology transportation services when performing the transports of passengers and cargoes is a main strategical priority of the Common European Transport Policy until 2020.<sup>2</sup>

The public and the economy as a whole demand an European transport service, which should perform free movement of people and goods with high degree of safety, security, environmental friendliness and comfort. Therefore of great significance is the improvement of the transport infrastructure since it helps for promoting the mobility of the people and the goods, as well as it contributes to the territorial drawing closer together between the different countries from the European Union and the competitiveness.

Bulgaria by means of its geographical position has significant advantage at the international transport market. But the slow performance of the transport policy, the limited capabilities for funding in the infrastructure has lead to big decrease of the transport flow and redirecting it through neighbouring countries. The main corridors on which the automobile and railroad cargo traffic has been directed through Bulgaria are mainly between Western and Central Europe and Turkey as well as from Turkey to Russia.

The main task of the European Union is to perform the transport policy so that it could provide until 2050 50% of the cargo transports of the automobile transport at distance bigger than 300 km to be transferred toward the railroad and naval transport. A decisive role shall have the development of the intermodal transport, which up to now is poorly developed in Bulgaria.

The construction of a common multimodal transport network and service shall lead to integration of the roads, railroads, ports and terminals. All of this requires significant investment funds both for developing entire infrastructure projects and for their real performance. There are necessary investments for new technologies, for passenger, cargo trains, which should cover the environmental norms and should improve the quality of the transport service.<sup>3</sup>

<sup>2</sup> Стратегия за развитие на транспортната инфраструктура на Р. България до 2015 г. [www.mtc.government.bg/upload/docs/Transportna\\_Infrastructura.doc](http://www.mtc.government.bg/upload/docs/Transportna_Infrastructura.doc)

<sup>3</sup> Стратегия за развитие на транспортната система на РБ до 2020г, <https://www.mtitc.government.bg>

## 2. THE TRANSPORT POLICY OF BULGARIA

The transport policy of Bulgaria is directed towards protection of the interests of the Bulgarian transport providers as the purpose is that their participation should be promoted in the distribution of the market of transport services.

The lack of policy for performing cargo transports had brought to bankruptcy thousands of Bulgarian automobile transport providers without taking into account the damages from the contamination of the environment, the increase of the road and transport accidents and the victims on the roads. In the last few years one accounts an increase of these accidents which is a serious challenge in front of the automobile transport providers.

Currently the transport sector of Bulgaria accounts a higher load on the transit highways and meanwhile on the same directions one observes no use of the capacity of the railroad infrastructure. These results are definitely negative, since in case of not taking into account the environmental advantages which the railroad has, this leads to significant social costs for the society. Particularly therefore is the development of the railroad transport with high priority in the transport policy of the European Union.

Particularly as a decision of these huge problems it is necessary that we shall increase the pace of development and realization of the green cargo corridors on the railroad transport, as we introduce the European policy for approach and use of the transit road and railroad infrastructure.

The distribution of the transport market and the performance of the transport service should be observed together with the benefits of the various types of transport, as well as with the possibility to offer to the users one integrated service for cargo and public transports. Currently every type of transport is limited only to its direction, which leads to increase of the risks and costs for transport.

The strategy for Bulgaria 2020 draws in a long-term aspect the targets of our country, which could not be fulfilled without highly technological transport infrastructure and transport service with a new generation of transport means and technologies. The modern transport service is a significant

necessity for the economic development of Bulgaria and the successful integration in the European transport system.

The demand for transport services depends to a big extent on the condition and the perspectives for development of the transport infrastructure. Particularly because of this the transport infrastructure has a great economic and social role. Depending on the economic development of the state one determines also the possibility for funding of the development and modernization of the transport infrastructure.

The automobile transport is leading in Bulgaria and in EU with regard to the cargo transportation. Meantime one observes a stable trend towards decrease in the transportation of goods on the railroads. The railroads are the most favourable for the environment transport segment and therefore it is necessary to work towards their bringing back to life and further development. The water transport in Bulgaria is characterized by relatively smaller capacities which are concentrated fully in the field of the international cargo services. The port infrastructure is represented by four ports - Bourgas, Varna, Lom and Rousse. Its level of finishing and its development are mainly related to the provisioning of foreign commercial cargo turnover and with the economy of the country as a whole.

The investments in the activities for further construction of the highways to the main port cities in the Republic of Bulgaria - Varna and Bourgas, the rehabilitation of the railroad sections to these towns as well as the creation and functioning of logistic areas, shall contribute for the additional increase of the competitiveness of the ports of Varna and Bourgas.

The airport infrastructure covers five functioning airports for public use, three non-functioning airports and around 150 flight grounds on the territory of Bulgaria. In the last few years one accounts an increase of the air traffic to Bulgaria, as the main passenger flow is directed mainly to and from the airports of Sofia, Varna and Bourgas. This is the reason that to them shall be directed mainly the investments for modernization and development of the airport infrastructure.

Of course, the development of the airports together with their adjacent infrastructure are important for the development of the economy,

which determines the desire of the country to perform policy directed towards attracting the private sector to invest in the management and maintenance of the airports under the form of concessions.

The investments, which are directed for development and modernization of the transport infrastructure in Bulgaria on the Operative programs "Transport" for program period 2007-2013 and "Transport and transport infrastructure" for program period 2014-2020 provide the opportunity for the country to become a leader in the transport market at a regional level. Both programs provide in total more than 3.9 billion EUR which are used for development, modernization and construction of the transport infrastructure.<sup>4</sup> The projects which are realized, significantly make the condition of the transport infrastructure better and promote for improving the quality of the transport service.

The road infrastructure includes the republican road network which length is 19 678km, comprised of various categories of roads – first class (2 975 km), second class (4 035 km), third class (12 063 km) and highways (605 km).<sup>5</sup> The data show that the highways have a relative small share from the total length of the republican road network - only 3.07%. Therefore the main infrastructure projects are directed namely towards constructing such roads.

For the last years as a result of the performance of infrastructure projects on Operative Program "Transport" one has done a significant improvement, modernization and construction of new roads, which brings a lot of economic and social effects - saved time for travelling on the highways, increased average speed of travel on the new lots of the highways, decreased traffic jams as a result of improved infrastructure and transport links.

It is important to notice that there is annual growth of the number of automobiles in Bulgaria, as well as an increase of the domestic and international transportations with cargo automobile transport, which imposes even bigger necessity of serious and funded investment activity. The investments in the infrastructure give possibility for ensuring the

<sup>4</sup> Секторна оперативна програма „Транспорт“ 2007-2013 г., и Секторна оперативна програма „Транспорт и транспортна инфраструктура“ 2014-2020г., [www.optransport.bg](http://www.optransport.bg)

<sup>5</sup> Изпълнителна агенция „Автомобилна администрация“, [www.rta.government.bg/](http://www.rta.government.bg/)

employment in the current economic environment, as well as for the construction of good transport links.

With regard to the railroad infrastructure, which length of the railroads in 2014 is 4032 km, from which 977 km are double ones, and 2863 km - electrified,<sup>6</sup> we could mark that its real condition needs serious modernization and rehabilitation of the lines.

At every 1000 km there are 39 km railroads. This shows a good density of the built railroads taking into account the diversity of the country's relief. Typical for the railroads is that they have been built more than half a century ago which leads to problems related with the maintenance of the competitive speed of travel, together with the necessity of renewal and performing of repair activities.

The condition of the railroad infrastructure has influence on the development of the port activity, too, since the infrastructure and the old railroad movable composition reflects in a negative way on the Bulgarian ports, since the cargoes from the neighbouring countries go round the country and are directed towards other ports in the region.

The main problem is related with the limited funding of the railroad infrastructure projects, which are extremely difficult and require huge financial funds. The funding only by European funds and programs is not enough in order to improve the condition of the infrastructure. Therefore we should activate more and more the use of all possible sources of funding (domestic and external). Currently one performs on Operative Program "Transport" three big infrastructure projects, which main purpose is the construction of a speed corridor by means of a quick and speedy railroad connection between the inland, port of Bourgas, Turkish border and the countries from Western Europe.

### **3. WHAT ARE THE POSSIBILITIES FOR DEVELOPMENT OF THE TRANSPORT INFRASTRUCTURE?**

The development of the transport infrastructure in Bulgaria is in direct dependency from the policy of the EU, since the main source of funds for the infrastructure by now is the European funding secured from the operative programs and the mechanism Interconnected Europe, which is directed namely towards the

improvement of the transport infrastructure (mainly the railroad one), the energetics and the telecommunications in the European countries.

The modernization and construction of the transport infrastructure could be realised by means of the efficient performance of the investment infrastructure projects, their quality performance and the use of funding from the Structural and Cohesion Fund of the European Union.

The European funds are not enough for the entire improvement of the transport infrastructure in Bulgaria, which imposes the acute necessity from increasing the share in the state and municipal budgets of the investments for transport infrastructure, moreover considering the fact that by now the engagement of private capitals in the construction of the railroads is impossible.

The projects which are of special priority are directed towards territorial drawing closer between the countries from the European Union, decrease of the traffic jams, improvement of the safety and the security of the transports, promotion of the development of intelligent and environmental friendly transport.

For development of the port and airport infrastructure in Bulgaria as a serious challenge there remains the finding of private investors by means of the use of concessions and performing real investments for development.

The development of the various types of transport infrastructures shall have serious economic and social effects. The development of the high speed railroad network shall provide saved time for travelling with the railroad transport. The modernization of the infrastructure and the information systems for management of the air traffic, of the land and water transport definitely shall increase the efficiency of the use of transport and infrastructure.

The implementation of innovative solutions and information technologies for the development of the transport sector shall provide the possibility for high competitiveness of the transport system and shall provide for links with the main European transport corridors.

The safety is such a state, which doesn't cause danger, and for the transport sector the safety

<sup>6</sup> Национална компания "Железопътна инфраструктура", [www.rail-infra.bg/](http://www.rail-infra.bg/)

is extremely important and has a responsible significance. The investments made for the development of the transport infrastructure follow the trend towards increasing the reliability and safety of the transportation process, as significant feature of the transport. The culture of safety is placed as especially important for the behaviour towards the safety and the engagement for solving its problems, as it includes a range from values, attitudes, skills and behavioristic models.

The achievement of quality transport service from the transport system requires an integrated approach towards the nature, features and the mutual relation between the various problems of the reliability and the safety. Mainstream in this direction is the building and maintenance of systems for management of the reliability and safety. This is a normative and management system with typical structure (determined by the purposes, tasks, directions and strategy for solving the problems of the operational safety and reliability), defining the standards and the procedures for safety functioning of the various railroad subsystems.

The quality of the transport service shall be made better by means of increased safety and security of the transports.

## CONCLUSION

The development of the transport sector in Bulgaria is directed towards offering a modern, ecological, safe and stable transport, which should help for achieving integration of our country within the common European transport system.

One of the main specifics of the last decades is the rash development of the transport infrastructure and the enhancement of the transport technologies. From an issue at local state level this development turns out to be a specific feature of the global policy and economy.

The transport has extremely significant role for the development of the economy of the country, by means of providing access to various markets. This, from its part, supposes serious development, modernization and support of the transport infrastructure, requiring significant investments.

The effect of the investments in the transport infrastructure is indisputable since it influences the economic growth of the country, the development of the commerce, mobility of the people.

## LITERATURE

- [1] ГЕОРГИЕВ, Н.: "Интегриран и системен подход към експлоатационната безопасност на железопътния транспорт", Монография, Годишник на ВТУ "Тодор Каблешков", 1/2015, ISBN: 1312-362X.
- [2] Изпълнителна агенция „Железопътна администрация“, [www.iaja.government.bg](http://www.iaja.government.bg)
- [3] Изпълнителна агенция „Автомобилна администрация“, [www.rta.government.bg/](http://www.rta.government.bg/).
- [4] Национална компания "Железопътна инфраструктура", [www.rail-infra.bg/](http://www.rail-infra.bg/).
- [5] НОЧЕВА, М.: Конкуренция Конкурентоспособност Транспортен пазар, Издателство ВТУ "Тодор Каблешков", ISBN 978-954-12-0212-8, София, 2012.
- [6] НИКОЛОВ, Н.: "Безопасност на транспорта", Списание "Механика, Транспорт, Комуникации" том 12, брой 3/1, 2014 г., ISSN 1312-3823.
- [7] Развитие на устойчива транспортна система в Република България, до 2020 г., Министерство на транспорта, С., януари, 2007 , <https://www.mtitc.government.bg>.
- [8] Статистически справочник, НСИ [www.nsi.bg](http://www.nsi.bg).
- [9] Секторна оперативна програма „Транспорт“ 2007-2013 г., [www.optransport.bg](http://www.optransport.bg).
- [10] Секторна оперативна програма „Транспорт и транспортна инфраструктура“ 2014-2020г., [www.optransport.bg](http://www.optransport.bg).
- [11] Стратегия за развитие на транспортната инфраструктура на Р. България до 2015 г. , <https://www.mtitc.government.bg>.
- [12] Стратегия за развитие на транспортната система на РБ до 2020г, <https://www.mtitc.government.bg>.
- [13] Bulgaria's economy, Center for Economic Development, Sofia, 2014, [www.ced.bg/](http://www.ced.bg/).
- [14] KORZENIOWSKI, L.: *Transport security in the concept of William Haddon*, Списание "Mechanics transport communications", 3/1, 2014, ISSN 1312-3823.
- [15] SVENTEKOVA, E., DVORAK, Z., NOVAK, L., LUSKOVA, M.: *The Importance and tasks of the transport provision of solving crisis situations*, "Mechanics transport communications", 3/1, 2013, ISSN 1312-3823.
- [16] SIMEONOV, OGNJAN, LAMBOVSKA, MAYA, "A suggestion about potentialities for the SWOT analysis's development concerning threats", "Economics and Management" journal, 2/2012, Technical University of Liberec, Czech Republic, p. 94-103, [http://www.ekonomie-management.cz/download/1379590783\\_036b/2012\\_02+A+Suggestion+About+Potentialities+for+the+Swot+Analysis+Development+Concerning+Threats.pdf](http://www.ekonomie-management.cz/download/1379590783_036b/2012_02+A+Suggestion+About+Potentialities+for+the+Swot+Analysis+Development+Concerning+Threats.pdf).
- [17] TODOROVA, D.: *"Konkurentosposobnost I ustoychivo razvitie na nazemniya transport"*, Spisanie "Ikonomicheski izsledvaniya", Broy 3, srt. 68-77 Jel: R41 2012.